



Deputy Under Secretary of Defense

Advanced Systems & Concepts

SUCCESS STORY

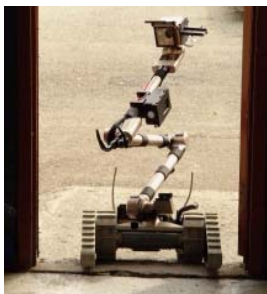
CUGR ACTD's CBRN-Detection Robots Support Global War on Terror

The ACTD program is saving warfighter and civilian lives with a robot that detects dangerous contaminants.

Warfighters entering possibly contaminated areas wear an air-tight, Level A protective suit, with 45 minutes of breathing time. In this period, warfighters must get down range, look for contaminants, take samples, and return — a slow and dangerous process.



Level A Suit



CUGV

This year, special robots called Chemical, Biological, Radiological and Nuclear (CBRN) Unmanned Ground Vehicles (CUGVs) will deploy via the U.S. Army Rapid Equipping Force (REF) to 20th Support Command in U.S. Central Command. (See www.cugractd.rdecom.army.mil). CUGVs detect ammonia, chlorine, carbon monoxide, oxygen levels, lower explosive limits, volatile organic compounds, gamma radiation, temperature, and humidity. Robots also can collect air samples and have cameras for situational awareness.

These robots resulted from the CBRN Unmanned Ground Reconnaissance (CUGR) ACTD. During the ACTD, a sensor suite was integrated into PackBot robots, previously used for other missions. The U.S. Army's 95th Chemical Company developed tactics, techniques and procedures for the CUGV. These were provided to the Army's CBRN School for developing requirements and other support needs.

The robot can operate up to four hours scouting an area. If it finds indications of CBRN, personnel in Level A protection can do surveys. A platoon commander in the 95th Chemical Company described the robots' value: "You send the robot in, and if that blows up, you just order another robot instead of losing a soldier."



CUGV Control Unit

The Defense Threat Reduction Agency and Joint Science and Technology Office sponsored the ACTD. The Edgewood Chemical Biological Center, U.S. Army Pacific, and Joint Project Manager for NBC Contamination Avoidance managed it. Product Manager, Consequence Management managed the REF effort.

For more information on the ACTD/JCTD program, visit: www.acq.osd.mil/jctd/.